

REMARKS

Claims 24-42, 45, 46, and 50-60 are pending and stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent no. 6,223,559 of Balakrishnan ("Balakrishnan") in view of U.S. Patent no. 6,240,448 of Imielinski et al. ("Imielinski").

Claims 31 and 52 have been amended only to correct minor informalities. The amendments are not made in response to the rejections or to comply with any statutory requirement of patentability, since no such amendments are believed to be necessary.

Applicant respectfully traverses the rejections. As discussed below, the cited combination of references does not disclose or suggest the present invention.

The present invention relates generally to a system in which a centralized server containing a voice browser brokers information associated with a user between two or more speech-enabled sites on a network. The voice browser facilitates sharing of the information between the different speech-enabled sites to allow the speech-enabled sites to use the information to optimize spoken dialogs with the user. The cited references do not have such a goal and, therefore, provide no motivation or suggestion to make what is claimed in the present application, and certainly do not disclose the claimed subject matter.

Claim 24 provides:

24. A method of executing a spoken dialog between a user and a speech-enabled site in a network including a plurality of voice-hyperlinked speech-enabled sites, the method comprising:
acquiring information associated with the user at a first speech-enabled site of the plurality of speech-enabled sites during a first spoken dialog between the user and the first speech-enabled site;
in response to the user initiating a voice hyperlink to access a second speech-enabled site of the plurality of speech-enabled sites, providing the information associated with the user

to the second speech-enabled site; and
optimizing a second spoken dialog between the user and
the second speech-enabled site by applying the information
associated with the user to reduce a number of states of the second
spoken dialog. (Emphasis added.)

To support an obviousness rejection, all claim limitations must be taught or suggested by the prior art. MPEP § 2143.03 (citing In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). Moreover, the claimed invention as a whole must be obvious in view of the cited art; it is not sufficient merely that individual limitations may be disclosed or suggested in the prior art. MPEP § 2141.03 (citing Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983)). The present rejections fail both of these requirements.

The cited combination of references does not disclose or suggest the claimed invention as a whole or even all of the individual limitations. In particular, the references do not disclose or suggest: acquiring information associated with a user during a first spoken dialog at a first speech-enabled site and in response to the user initiating a voice hyperlink to access a second speech-enabled site, providing the information associated with the user to the second speech-enabled site, and then optimizing a second spoken dialog between the user and the second speech-enabled site by applying the information associated with the user to reduce a number of states of the second dialog.

Although Applicants' argument is directed to the proposed combination of references, it is useful to first discuss them individually. Balakrishnan relates to a technique for using spoken commands to control two or more applications on a computer system. See Balakrishnan's abstract, col. 4 lines 28-40. The Office has acknowledged that Balakrishnan does not teach using an application in a plurality of speech enabled sites (Office Action, p. 4). Applicant agrees. Importantly, Balakrishnan also does not even relate to performing or facilitating

spoken dialogs between a user and a machine. Balakrishnan simply relates to allowing a user to control a computer with spoken commands; there is no two-way spoken interaction between the user and the machine.

Imielinski relates to a system in which hyperlinked Web pages are embedded with audio content and can be accessed by a user using a telephone keypad or spoken commands. See Imielinski's abstract. However, Imielinski does not disclose or suggest acquiring information associated with a user during a first spoken dialog at one speech-enabled site and, in response to the user initiating a voice hyperlink to access another speech-enabled, providing the information associated with the user to the second speech-enabled site, and then optimizing a second spoken dialog between the user and the second speech-enabled site by applying the information associated with the user that was acquired at the first site.

From the foregoing, it should be apparent that no combination of Balakrishnan and Imielinski produces or even suggests all of the limitations of the present invention, as set forth in claim 24, nor does it suggest the claimed invention as a whole.

Furthermore, the Office is reminded that, to support an obviousness rejection, there also must be something in the prior art to suggest the desirability, and thus the obviousness, of making the claimed combination. In re Rouffet, 149 F.3d1350, 1356 (Fed. Cir. 1998). The suggestion may not be found using hindsight gleaned from the applicant's specification. Id. at 1358.

In the present case, the only reason put forth by the Office for combining the teachings of Balakrishnan and Imielinski is that "it would advantageously allow the applications to be used in multiple user setup." Office Action, p. 3. That bare bones rationale is flawed and, moreover, misses the point of the invention entirely. First, it is already implicit in Imielinski that the disclosed system can be used by multiple users, by virtue of the fact that it is implemented

on the World Wide Web (a multi-user environment). Consequently, there would be no reason for one skilled in the art to look beyond Imielinski's teachings to provide a "multiple user setup", as contended by the Office. Thus, the alleged motivation to combine Imielinski with Balakrishnan is without merit. Moreover, the present invention is directed to optimizing human-machine spoken dialogs (not just commands) by sharing user information between different speech-enabled sites. Neither Balakrishnan and Imielinski even hints at this goal, such that there is suggestion or motivation in these references to attempt to achieve the claimed subject matter. (Note that these points, while not repeated below, are also applicable to the rejections of the remaining claims to the extent the Office has used the same flawed rationale to reject those claims.)

Consequently, claim 24 and its dependent claims are allowable over the cited art.

Claim 27 provides:

27. A method of facilitating operation of a plurality of interconnected speech-enabled sites on a network, the method comprising:
providing a server system on the network; and
operating the server system to selectively provide the speech-enabled sites with access to information about users of the speech-enabled sites. (Emphasis added.)

Balakrishnan and Imielinski contain no disclosure or suggestion of using a server system to selectively provide multiple speech-enabled sites with access to information about users of the speech-enabled sites. Consequently, claim 27 and its dependent claims are allowable over the cited art.

Claim 60 recites operations similar to those of claim 27 discussed above and is allowable over the cited art for similar reasons.

Claim 31 provides:

31. A method of facilitating operation of a plurality of interconnected speech-enabled sites on a network, the method comprising:
 using a server system on the network to execute a browser for enabling a user to access the speech-enabled sites; and
 using the browser to broker information associated with the user for the speech-enabled sites on the network. (Emphasis added.)

Balakrishnan and Imielinski contain no disclosure or suggestion of using a browser in a server system to broker information associated with a user for multiple speech-enabled sites on a network. The Office cites col. 6, lines 23-52 of Imielinski as teaching the brokering of information with respect to speech-enabled sites. Office Action, p. 4. The Office is mistaken. The cited text contains not even a hint of brokering information between speech-enabled sites, and certainly no suggestion of brokering information associated with the user, or using a browser to do the brokering. Consequently, claim 31 and its dependent claims are allowable over the cited art.

Claim 45 provides:

45. A method of facilitating operation of a speech-enabled site on a network, the method comprising:
 receiving a request at a server system for information associated with a user, the request associated with a speech-enabled site on the network and relating to a dialog between the speech-enabled site and the user, the information maintained on a second site on the network; and
 using the server system to provide a service of the second site to the speech-enabled site, to provide the information associated with the user to the speech-enabled site.

The cited combination of references does not disclose nor suggest such a method. In particular, the references do not disclose or suggest receiving a

request at a server system for information associated with a user, where the request is associated with a speech-enabled site on the network and relates to a dialog between the speech-enabled site and the user, and where the information is maintained on a second site on the network; and using the server system to provide a service of the second site to the speech-enabled site, to provide the information associated with the user to the speech-enabled site. Consequently, claim 45 and its dependent claims are allowable over the cited art.

Claim 50 provides:

50. (Amended) An apparatus configured to allow a user to interactively browse a telephony-based network, the apparatus comprising:

- means for coupling a user to a first speech-enabled service at a first location on the network;
- means for acquiring information associated with the user;
- means for outputting an indication audibly detectable by the user, the indication corresponding to a second speech-enabled service at second location on the network;
- means for detecting the user speaking an utterance matching the indication;
- means for providing the user with access to the second speech-enabled service in response to the user speaking the utterance matching the indication; and
- means for providing the information associated with the user to the second speech-enabled service in response to the user speaking the utterance matching the indication, the information for use by the second speech-enabled service to optimize a spoken dialog between the user and the second speech-enabled service. (Emphasis added.)

Neither Balakrishnan nor Imielinski contains any disclosure or suggestion of such an apparatus as a whole, and particularly of one which includes the features highlighted above. Consequently, claims 50 and 51 are allowable over the cited art.

Claim 52 provides:

52. A system comprising:

a first processing system configured to execute a speech-enabled browser, the browser configured to maintain information associated with a user; and

a second processing system coupled on a network to the first processing system and configured to operate as a speech-enabled site, the second processing system configured to in response to receiving an access request from a remote user, transmit a request to the browser for the information associated with the user;

receive the information associated with the user in response to transmitting the request;

apply the information associated with the user to optimize the dialog with the user by reducing the number of required states of the dialog; and

execute the optimized dialog with the user.

(Emphasis added.)

Neither Balakrishnan nor Imielinski contains any disclosure or suggestion of a system as recited in claim 52. In particular, note that neither Balakrishnan nor Imielinski discloses or suggests a voice browser. A voice browser is a speech-enabled browser using which a user can navigate between speech-enabled sites using speech input. Imielinski does disclose the use of a browser to access audio-enabled web sites provided on "audio web servers". The audio web servers may include speech to text conversion capability to enable a user to access an audio enabled web page with spoken input. Imielinski, col. 2, lines 49-52. However, the browser in Imielinski is not speech-enabled and is, therefore, not a "voice browser" as recited in claim 52.

Further, in contrast with claim 52, the references also do not disclose a second processing system operating as a speech-enabled site which, in response to the user requesting access to that site, transmits a request to the voice browser for information associated with the user, and in response to receiving such

information, uses the information to optimize a dialog that it executes with the user.

Consequently, claims 52 and its dependent claims are allowable over the cited art.

Claim 56 includes limitations similar to those in claim 52 discussed above and is allowable over the cited art for similar reasons along with its dependent claims.

For the foregoing reasons, all claims are believed to be in condition for allowance. Allowance of the present application is, therefore, respectfully requested.

If any additional fee is required, please charge Deposit Account No. 02-2666.

Respectfully submitted,
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MARKED-UP VERSION OF AMENDED CLAIMS SHOWING CHANGES

Please amend the claims as follows:

- 1 31. (Twice Amended) A method of facilitating operation of a plurality of
2 interconnected speech-enabled sites on a network, the method comprising:
3 using a server system on the network to execute a browser for enabling a
4 user to access the speech-enabled sites; and
5 using the [voice] browser to broker information associated with the user
6 for the speech-enabled sites on the network.
- 1 52. (Amended) A system comprising:
2 a first processing system configured to execute a speech-enabled browser,
3 the browser configured to maintain information associated with a user; and
4 a second processing system coupled on a network to the first processing
5 system and configured to operate as a speech-enabled site, the second processing
6 system configured to
7 in response to receiving an access request from a remote user,
8 transmit a request to the browser for the information associated with the user;
9 receive the information associated with the user in response to
10 transmitting the request;
11 apply the information associated with the user to optimize [the] a
12 dialog with the user by reducing the number of required states of the dialog; and
13 execute the optimized dialog with the user.